

CLAIMS

1. A product in panel form, comprising a fiber-reinforced cementitious matrix, prepared from a sheet material by filtration on a screen of an aqueous suspension comprising at least one hydraulic binder, such as cement, at least one fibrous material and devoid of siliceous sand, thicknesses of said sheet material being superposed until the desired final thickness is obtained, in order to give a panel which is then autoclaved.
2. The product as claimed in claim 1, wherein the matrix comprises at least one pozzolan or material capable of undergoing a pozzolanic reaction, this pozzolan optionally containing silica in which preferably said silica essentially consists of amorphous silica.
3. The product as claimed in claim 1 or 2, wherein the pozzolan or pozzolans are chosen among aluminosilicates, calcium aluminosilicates and amorphous silica.
4. The product as claimed in claim 3, wherein at least one pozzolan is chosen from metakaolin, fly ashes, rice husk ashes, or slag.
5. The product as claimed in one of the preceding claims, wherein the matrix furthermore includes calcium carbonate.
6. The product as claimed in one of the preceding claims, wherein the matrix is obtained from a suspension having relative to the total weight of dry matter):
  - from 0 to 36 by weight of calcium carbonate;

- from 50 to 95% by combined weight of cement and pozzolan;
- from 5 to 12% by weight of fibers; and
- from 0 to 10% by weight of additives.

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7. The product as claimed in one of claims 2 to 6, wherein the cement/pozzolan weight ratio is about 1.3 to 2.6 and/or the pozzolan content is less than 40% by weight.

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8. The product as claimed in any one of the preceding claims, wherein the fibers comprise at least plant fibers, especially cellulose fibers.

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9. The product as claimed in any one of the preceding claims, **and which** is in the form of a siding or cladding element.

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10. A process for manufacturing a product as claimed in any one of the preceding claims, wherein a sheet material is prepared by filtration on a screen of an aqueous suspension comprising at least cement and fibers, thicknesses of said sheet material are superposed until the desired final thickness is obtained, in order to give a panel, and the panel is subjected to an autoclave treatment.

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11. The process as claimed in claim 10, wherein the temperature in the autoclave is about 160 to 180°C and the pressure in the autoclave is about 7 to 10 bar.